2

Docket No. SPO-103 Serial No. 09/142,524

- is a polypeptide in which (i) at least one T-cell epitope peptide comprising an amino acid sequence selected from the peptide group consisting of peptide no. 14 (SEQ ID NO: 28), 15 (SEQ ID NO: 29), 16 (SEQ ID NO: 30), 17 (SEQ ID NO: 31), 22 (SEQ ID NO: 36) and 43 (SEQ ID NO: 57) of cedar pollen allergen Cryj 1 shown in Fig. 1, is linearly bound to (ii) a T-cell epitope peptide comprising an amino acid sequence selected from the peptide group consisting of peptide no. 14 (SEQ ID NO: 97), 17 (SEQ ID NO: 100), 18 (SEQ ID NO: 101), 37 (SEQ ID NO: 120), 38 (SEQ ID NO: 121), 48 (SEQ ID NO: 131) and 69 (SEQ ID NO: 152) of cedar pollen allergen Cryj 2 shown in Fig. 2,
- (b) does not substantively bind to cedar pollen allergen-specific IgE antibody in serum of cedar pollinosis patients,
- (c) is capable of proliferating in vitro human T cell clones specific to the T cell epitope peptide within the peptides of (a)
- is capable of proliferating in vitro peripheral blood lymphocytes of a cedar pollinosis patient, and
- (e) has no cysteine residues.

Please cancel claims 6, 17, 31, and 35 to 47.

Please add the following claims:

- 49. (New) A peptide-based immunotherapeutic agent comprising the amino acid sequence of SEQ ID NO: 1.
- 50. (New) A peptide-based immunotherapeutic agent comprising the amino acid sequence of SEQ ID NO: 2.

S:\SH-RESP\SPO\SPO-103-RES-2-13AUG2002-OA.DOC/DNB/jaj

3

Docket No. SPO-103 Serial No. 09/142,524

- 51. (New) A peptide-based immunotherapeutic agent comprising the amino acid sequence of SEQ ID NO: 3.
- 52. (New) A peptide-based immunotherapeutic agent for cedar pollinosis comprising an effective amount of a polypeptide, wherein said polypeptide comprises:
 - (a) a T-cell epitope peptide comprising at least one T-cell epitope peptide consisting of an amino acid sequence selected from the group consisting of peptide no. 14 (SEQ ID NO: 28), 15 (SEQ ID NO: 29), 16 (SEQ ID NO: 30), 17 (SEQ ID NO: 31), 22 (SEQ ID NO: 36) and 43 (SEQ ID NO: 57) of cedar pollen allergen Cryj 1 shown in Fig. 1 linearly bound to a second T-cell epitope peptide comprising at least one T-cell epitope peptide consisting of an amino acid sequence selected from the group consisting of peptide no. 14 (SEQ ID NO: 97), 17 (SEQ ID NO: 100), 18 (SEQ ID NO: 101), 37 (SEQ ID NO: 120), 38 (SEQ ID NO: 121), 48 (SEQ ID NO: 131) and 69 (SEQ ID NO: 152) of cedar pollen allergen Cry j 2 shown in Fig. 2.
- 53. (New) The peptide-based immunotherapeutic agent according to claim 52, wherein said agent does not substantively bind to cedar pollen allergen-specific IgE antibody in serum of cedar pollinosis patients.
- 54. (New) The peptide-based immunotherapeutic agent according to claim 53, wherein said agent is capable of proliferating *in vitro* human T cell clones specific to the T cell epitope peptides.
- 55. (New) The peptide-based immunotherapeutic agent according to claim 54, wherein said agent is capable of proliferating *in vitro* peripheral blood lymphocytes of a cedar pollinosis patient.
- 56. (New) The peptide-based immunotherapeutic agent according to claim 55, wherein said agent has no cysteine residues.
- 57. (New) The peptide-based immunotherapeutic agent according to claim 52, wherein said agent further comprises a cleavage site between said T-cell epitope peptides.

S:\SH-RESP\SPO\SPO-103-RES-2-13AUG2002-OA.DOC/DNB/jaj

4

Docket No. SPO-103 Serial No. 09/142,524

- 58. (New) The peptide-based immunotherapeutic agent according to claim 56, wherein said agent further comprises a cleavage site between said T-cell epitope peptides.
- 59. (New) The peptide-based immunotherapeutic agent according to claim 52, further comprising a pharmaceutically acceptable carrier or diluent.
- 60. (New) The peptide-based immunotherapeutic agent according to claim 58, further comprising a pharmaceutically acceptable carrier or diluent.
- 61. (New) The peptide-based immunotherapeutic agent according to claim 1, further comprising a pharmaceutically acceptable carrier or diluent.
- 62. (New) A method of treating cedar pollinosis comprising the administration of an effective amount of the peptide based immunotherapeutic agent according to claims 1, 49, 50, 51, 52, 59, 60, or 61.
- 63. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 1 is administered.
- 64. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 52 is administered.
- 65. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 59 is administered.
- 66. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 60 is administered.
- 67. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 61 is administered.
- 68. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 49 is administered.
- 69. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 50 is administered.
- 70. (New) The method according to claim 62, wherein an effective amount of the peptide based immunotherapeutic agent according to claim 51 is administered.

\$:\SH-RESP\SPO\SPO-103-RE\$-2-13AUG2002-OA.DOC/DNB/jaj